

REMARKS

This amendment is in response to the Official Action dated December 18, 2009. Favorable reconsideration of this application in view of the above amendments and following remarks is respectfully requested.

At the outset, the undersigned counsel for Applicants would like to express her gratitude to Examiner Shay for the courtesies extended during the interview conducted on April 26, 2010. During the interview, proposed amendments were discussed relative to overcoming the rejections under Section 112 and the drawing objections. In addition, counsel explained that the claimed invention is directed to providing a level of attenuated light intensity to the lesioned part which is based upon the predetermined range of light intensity for activating the photosensitive substance and an attenuation of the light irradiating intensity as it passes through the healthy superficial part. As noted by counsel, none of the prior art cited by the Examiner takes into consideration or compensates for the attenuation of the light intensity passing through healthy tissue, in order to determine the light intensity that will reach the lesioned tissue. The above amendments to the claims are made consistent with the discussions during the interview to overcome the Section 112 rejections and to clarify the novel features of the claimed invention.

Drawing Objections

The drawings have been objected to because elements 11, 12, 13, 14 and 20-24 in Figure 4 are not labeled with indicia indicative of their function. Responsive thereto, a replacement sheet drawing is submitted herewith, wherein Figure 4 has been amended as requested by the Examiner. A formal drawing incorporating these changes will be submitted upon receipt of the Examiner's approval for the same.

The drawings were also objected to for failing to show every feature of the claimed invention (Office Action, Page 4, last paragraph). However, as discussed with the Examiner, this appears to have been obviated by the prior amendment and cancellation of the noted terms from the claims.

New Matter

The amendment filed September 22, 2009 has been objected to under 35 U.S.C. §132(a) because it allegedly introduces new matter into the disclosure. Responsive thereto, and in order to expedite prosecution of the present application, the passage noted by the Examiner has been deleted from the claims. Applicants respectfully contend that the objection to the amendment as well as the rejection under Section 112, first paragraph, have thus been obviated.

Rejections Under 35 U.S.C. § 112

The Examiner contends that claims 1, 13, 17 and 29 are incomplete, as they provide no means or steps by which the intensity of the light at certain depths for any general tissue is sensed or determined. As set forth above, claims 1 and 17 have been amended to clarify how to determine the level of attenuated light that is applied to the lesioned part and claims 13 and 29 have been amended to include inputting the attenuation properties of a healthy superficial part, shallower than the lesioned part, to the control means. As such, Applicants submit that the rejection under Section 112, second paragraph, should be withdrawn.

The remaining rejections under Section 112, second paragraph, have been carefully reviewed and the claims have been amended to overcome the same.

With respect to the terms "cell fatality rate" and "cell death rate", the claims and specification have been amended consistent with Figure 3. Accordingly, the terms are consistently and definitely defined.

Claim Rejections Under 35 U.S.C. § 103

Claims 1-30 have been rejected under 35 U.S.C. 103 as being obvious over Bower et al. (WO 93/21842), either alone or in combination with other references. For at least the following reasons, these rejections are respectfully traversed.

Claim 1 is directed to photodynamic therapy equipment for treating a lesioned part by using a photosensitive substance, which is activated by a light having an intensity of a predetermined range but is not activated by a light having the intensity

out of the predetermined range. The photodynamic therapy equipment comprises, *inter alia*, an irradiation means and a control means controlling the intensity of the light irradiated by the irradiation means. The control means receives a depth information of a lesioned part and sets the light irradiating intensity based on the depth information so that the pulsed light is allowed to pass through a healthy superficial part without activating the photosensitive substance. The pulsed light reaches the lesioned part at a predetermined level of attenuated light intensity which activates the photosensitive substance in the lesioned part. Hence, the predetermined level of attenuated light intensity is based upon the predetermined range of light intensity for activating the photosensitive substance and an attenuation of the light irradiating intensity as it passes through the healthy superficial part. That is, the intensity of the pulsed irradiating light which is applied takes into consideration and compensates for the attenuation of said light which is going to occur as it passes through the healthy superficial part. Applicants respectfully submit that this feature is not disclosed or suggested by the cited prior art.

The primary reference upon which the Examiner relies, Bower et al., discloses the use of LEDs in photodynamic therapy, that is, LEDs at a predetermined power level and duration to activate a photosensitizer. The wavelength of the LED is selected to match the absorption spectrum of the selected photosensitizer and to obtain the needed tissue penetration, as explained on Page 15, lines 5-12. Bower et al. does not recognize or compensate for an attenuation of the light as it passes through healthy tissue, prior to reaching the target area. Accordingly, Applicants submit that the claimed invention is not rendered unpatentable by Bowers et al.

The other references cited by the Examiner, Prasad et al., Selman, Dumoulin-White et al., and Dougherty, do not supply the teaching found to be lacking in the primary reference. That is, none of the secondary references take into consideration and compensate for the attenuation of the treatment light intensity as it passes through healthy tissue, without damaging the healthy tissue.

Accordingly, even combining the teachings of the applied references, Applicants respectfully submit that the claimed invention is not obvious thereover.

CONCLUSION

Should any questions arise in connection with this application or should the Examiner believe that a telephone conference with the undersigned would be helpful in resolving any remaining issues pertaining to this application, the undersigned respectfully requests that she be contacted at the number indicated below.

Respectfully submitted,

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